

**Abstract of the Disclosure**

The present invention presents a way to augment the playback of a compact disk by increasing the resolution, the number of channel, or both during reproduction, while still allowing the resultant CD to be playable on a standard CD player. From a high quality original master or other source, it produces a set of conventional two track audio signals and a set of residual or additional audio data derived from the original master using this conventional stereo audio signal. Additionally, it extracts a set of control information relating this additional audio data to the conventional stereo signals. This additional audio data contains information from the original master that would otherwise be lost when encoded onto a conventional CD. Upon playback, the control information allows the additional audio data to be recombined with the conventional stereo signal in order to reconstruct the original master. A single CD embodiment places the conventional stereo tracks in the audio portion of a compact disk, with the residual or additional audio data and control information stored in the CD-ROM portion of the same disk. The described techniques extend to more general embodiments, since once the original signal is separated into a conventional stereo portion and the additional information, these may be delivered and stored independently in media other than a CD, with the conventional stereo portion usable by itself and only recombined with the additional information when augmented playback is desired.